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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER GUIDOTTI, LAURA COLE	
			ART UNIT 3727	PAPER NUMBER
			NOTIFICATION DATE 12/02/2009	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No. 10/535,163	Applicant(s) KRESSNER, GERHARD	
	Examiner Laura C. Guidotti	Art Unit 3727	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-26, 28, 29, 31, 35 and 37-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 51 and 52 is/are allowed.
- 6) ☒ Claim(s) 24-26, 28, 29, 31, 37-40, 42, 43, 45, 47-50 and 53 is/are rejected.
- 7) ☒ Claim(s) 35, 41, 44 and 46 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 24-26, 28-29, 31, 37-40, 42-43, 45, 47, 49-50, and 53 are rejected under 35 U.S.C. 102(e) as being anticipated by Blaustein et al., US 6,725,490.

Blaustein et al. disclose the claimed invention including a toothbrush head comprising a brush head carrier housing (816) having a free end configured to be releasably connected to an electric toothbrush hand piece (817; see Figure 8, is releasably connectable via unlabeled adapter piece shown in Figure 8 that is equivalent to 17 in Figure 1, Column 3 Lines 27-30, see also Column 5 Lines 5-24), the brush carrier comprising a translator element rotatable about a longitudinal rotation axis within the brush head carrier housing (1518), a plurality of bristle supports (1508, 814) that each carry a respective bristle set (unlabeled, see Figure 15) and are movably mounted on the brush head carrier housing (see Figure 15), and a plurality of drive couplers (1520/1522 and portion within 814 that receives the eccentric or offset ends of translator element), each drive coupler being coupled to a respective bristle support (see Figure 15) and eccentrically coupled to the translator element an eccentric driver (1514), such that each of the bristle supports is oscillated in response to rotation of the translator element (see Figures 15, Column 5 Line 5 to Column 10 Line 17), at least one of the bristle supports coupled so as to rotate in oscillation about an axis of rotation extending transverse to the longitudinal rotation axis of the translator element (814), wherein the

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plurality of bristle supports includes a main bristle support rotatable about an axis of rotation essentially perpendicular to the longitudinal rotation axis of the translator element (814) and an auxiliary bristle support (1508) provided about a pivot axis (axis of 1510, Figure 15) essentially perpendicular to the longitudinal rotation axis of the translator element and disposed near an edge of the auxiliary bristle support nearest the main bristle support (Figure 15), such that an end of the auxiliary bristle support remote from the main bristle support oscillates laterally as the auxiliary bristle support pivots about the pivot axis (Figure 15; Column 9 Lines 8-26)(claims 24, 50, 53). Regarding claim 25, the eccentric driver comprises a driver pin (unlabeled rightmost end of 1514 that engages 814). Regarding claim 26, the driver pin moves in an orbit that includes at least a partial cylinder segment relative to the rotation axis of the translator element (Figure 15, the pin rotates in a "cylinder segment" path relative to the axis of the translator element). Regarding claim 28, the brush head carrier is non-rotatably coupled to the hand-piece (adapter piece in Figure 8 that is equivalent to 17 in Figure 1 is a non-rotatable coupling). Regarding claim 29, each of the bristle supports has its own axis of motion transverse to the longitudinal axis (see Figures 15). Regarding claim 31, the "main" bristle support is disposed at a distal end of the brush head carrier (when main bristle support is 814, see Figure 15). Regarding claim 37, the driver pin is coupled to at least one of the drive couplers at a coupling that allows for relative pivoting of the coupled drive coupler with respect to the driver pin, to compensate for angulation between the eccentric driver and a corresponding bristle support (814). Regarding claim 38, at least one of the drive couplers (drive coupler 1520/1522 or 814) is coupled

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to the eccentric driver with a translational degree of freedom (as 1518 drives translationally against 1520/1522 or as 1514 translationally drives 814), allowing translational motion in a direction transverse to the longitudinal rotation axis of the translator element (Figure 15). Regarding claim 39, the eccentric driver is guided within a longitudinally slotted clearance space defined within at least one of the drive couplers (see Figure 15, see unlabeled clearance space within 814). Regarding claim 40, one of the bristle supports defines a sliding surface that extends transverse to a longitudinal axis of the toothbrush head and on which the eccentric driver is adapted to slide (sliding surface is 1520 against which 1512 slides). Regarding claim 42, at least one of the drive couplers is constructed such that forces and movements are transmitted exclusively in a direction transverse to a longitudinal direction of the toothbrush head (the coupler of support element 814). Regarding claim 43, the drive couplers are free to move in a plane containing a longitudinal direction of the toothbrush head (in that when 814 moves it has a longitudinal direction) and being force-transmitting in a plane perpendicular thereto (Figures). Regarding claim 45, at least one of the drive couplers is integral with its respective bristle support and in positive engagement with the driver (the drive couplers are integral to the bristle supports in all embodiments, see Figure 15). Regarding claim 47, the translator element comprises a disengageable rotary coupling adapted to engage a drive element of a toothbrush hand piece (the equivalent of 17 shown in Figure 8). Regarding claim 49, the toothbrush comprises a hand piece equipped with an electric drive (819) and a toothbrush head is releasably secured to the hand piece (via the equivalent of 17 shown in Figure 8). Further regarding claim 50, the

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driver pin of the translator element may be considered to be the entirety of 1512 and 1514, thus the driver pin directly engages both drive couplers (or alternatively, Figure 9 includes all limitations of claim 50 as the coupler 922 has a passage in which the driver pin passes through).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blaustein et al., US 6,725,490 as applied to claim 24 in view of Driesen, US 5,652,990.

Blaustein et al. disclose all elements previously mentioned above, however does not disclose that the bristle tufts are of varying orientations, cross sections, lengths, or tilted at varying angles.

Driesen teaches a disc-shaped bristle support (38) that carries bristle tufts having varying lengths and cross-sections (see Figures 2, 5) so that bristles more central to a rotation axis of the support are shorter than those near the outer perimeter of the support so that the longer bristles can clean interproximal spaces and can remove plaque in a tooth-gingiva region, and so that the inner bristles will have a smaller diameter than those at the outer perimeter so that they are more rigid and suitable for cleaning interproximal spaces (Column 1 Line 60 to Column 2 Line 9).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify the bristle tufts of Blaustein et al. to have varying cross sections and varying lengths, as Driesen teaches, so that bristle tufts at an outer periphery of the

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support will be longest and have a smaller diameter than those situated near a center of the support so that those bristle tufts at the outer periphery will be able to advantageously clean interproximal areas.

Allowable Subject Matter

3. Claims 51-52 are allowed.

Claims 35, 41, 44, and 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments filed 03 March 2009 have been fully considered but they are not persuasive.

With regards to Blaustein, the Applicants argue that Blaustein fails to disclose all of the limitations found in amended claim 24, specifically the configuration or motion of a brush head carrier. For the reasons previously set forth above, the Examiner respectfully disagrees. The Examiner maintains that the embodiment of Figure 15 discloses the invention as claimed. Regarding claim 50, the interior region of 814 which serves as a drive coupler as it engages with 1514 (Figure 15) and that interior region itself is a defined passage through which the driver pin passes. Also Figure 9 includes all limitations of claim 50 as the coupler 922 has a passage in which the driver pin passes through.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Guidotti whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Wednesday, 6am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica Carter can be reached on (571) 272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Laura C Guidotti/
Primary Examiner, Art Unit 3727

lcg